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ABSTRACT

IN THIS ABRIDGED TALK CONCERNING THE PREPARATION OF BEHAVIORAL OBJECTIVES FOR FOREIGN LANGUAGE LEARNING, THE AUTHOR EXPOUNDS ON PROCEDURES CONSIDERED NECESSARY FOR CURRICULUM DEVELOPMENT. THE FOUR-STEP MODEL INCLUDES: (1) SPECIFICATION OF OBJECTIVES, (2) PRE-ASSESSMENT OF PREVIOUSLY ACQUIRED SKILLS OR KNOWLEDGE, (3) DETERMINATION OF INSTRUCTIONAL SEQUENCE, AND (4) STUDENT EVALUATION. ATTAINMENT OF INSTRUCTIONAL OBJECTIVES AS THE GOAL IN THE TEACHING AND LEARNING RELATIONSHIP IS STRESSED IN THE ARTICLE. THE INSTRUCTIONAL OBJECTIVES EXCHANGE AT THE UNIVERSITY OF CALIFORNIA, LOS ANGELES (UCLA) IS ALSO TREATED. DISCUSSION OF PERFORMANCE TESTS OF TEACHING PROFICIENCY DEVELOPED AT UCLA INVOLVING EXPERIENCED TEACHERS, HOUSEWIVES, TELEVISION TECHNICIANS, AND GARAGE REPAIRMEN CONCLUDES THE ARTICLE. (RL)

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Behavioral Objectives and Teaching Skills*

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(Editor's Note: *The following is an abridgment of a talk originally delivered under the title, Preparing Behavioral Objectives for Foreign Language Learning. The introductory remarks provided information on the odyssey experienced by Dr. Popham in becoming an educator. His style is that of an iconoclast, but his concern is for constructive, responsible instructional activities which should fit under the heading of relevancy for the learner. While tracing his career from his undergraduate days in an Oregon college, through teaching high school English and then on to graduate school and subsequent teaching assignments in Kansas and at San Francisco State College, Dr. Popham spoke with a certain irony about his progressive disillusionment with the remoteness of teacher training programs from the actual needs of the teacher about to face a class of youngsters.*

We begin with his arrival at the School of Education at UCLA).

Teachers Need Help In Making Decisions About Teaching

I was invited to come to UCLA about seven years ago to teach the required class in general methods of instruction for secondary teachers. When I accepted the responsibility to teach that class I didn't view it as just another class. This was the same class that to me had been such a fraud in my own education courses, and I couldn't very well go to UCLA and perpetrate the same kind of fraud on other people, and so I had to try to think very hard about what it is I could give to a prospective teacher. And I don't think that's different from what can be used for an in-service teacher, what you can give to prospective teachers that makes a real difference in what they do. And so, during the summer before coming to UCLA it was like a pre-guru meditation for me. I really had to think very hard about what was involved in teaching, harder than I ever had had to think before about what one could do in a relatively modest time with people, because, quite clearly in a single semester, even if you have a couple of classes, you are not going to make people markedly different with respect to their personality, intelligence; you can't make a dumb person smart, you can't make an introvert an extrovert, you can't really in a short period of time make a poor speaker into a polished speaker. You can't do those things, but you can do *one* thing with people in a modest period of time, and that is: *you can improve the quality of the intellectual decisions they make regarding teaching.* You see, we are always making decisions regarding teaching; when I teach my classes at UCLA and you teach your classes in foreign language you are making decisions about what you do and what your students do, and you are making those constantly.

Decisions Concern Changes In Learner Behavior

Now, it seems to me, since it was a fairly intellectual process, that it was a malleable process, and one could, indeed, change the way people thought about how they should make decisions in the classroom. Conceding that, I then had to look at one other basic assumption: that the only reason a teacher is in a classroom is to modify his learner, to change him somehow. If he lectures with the eloquence of Demosthenes and yet they go out from that class essentially unchanged — smiling perhaps as they leave, but the same kinds of human beings — then he has failed as an instructor. If he conducts discussions with the fervor of Carl Rogers . . . and still the students leave essentially unchanged, then he has failed. I don't find any alternative assumption tenable. I can't believe that a teacher could be considered successful who doesn't change his students. And if that's the assumption that you would be willing to buy, then my task became simpler and that is, if I could get prospective teachers to focus on a way of thinking about instruction which was attentive to changes in learners rather than attentive to the many things that teachers are usually attentive to, then I would have won a little bit, or so it seemed to me. You see, most teachers when they think about that first class, and think about what they are going to do ask the wrong question. And the question they invariably asked, and the question I used to ask myself when I taught in High School is: "What will *I* do, What will *I* do, what will *I* have the students do?" That was constantly the question I asked myself. The question I should have been asking is: "What do I want the students to become? What kinds of modifications will I try to effect in them?" Having asked that question, then I can make better decisions about what I do and what they do. But, to ask that question properly requires that one explicate his goals, talk about his intentions in terms of changes in learners.

Instructional Intentions Must Be Specified

What I suggest is that we know enough about teaching today, enough about instruction, that we can make it more of a technology than we could ten years ago. I would not deny for a moment that there is great artistry in teaching. I think also some teachers are born and not made, and there are some teachers you couldn't possibly hurt. The vast majority of people, and I include myself, can be made better, by thinking more vigorously about instruction. And to think rigorously about instruction requires the use, I submit, of some precise description of instructional intentions.

And this is when I first started getting preoccupied with the notion of behavioral objectives. I had made the acquaintance of Robert Mager when he was up in the Palo Alto area and I even tried out his little book which some of you might have read. (Preparing Instructional Objectives)). Mager's book came out during the early days of programmed instruction and stated that what would make the most difference in respect to programmed instruction is not the teaching machines, and not the small frames, and small steps, but the explication of objectives in precise terms. And I really believed him, and I applied that same notion when I came to UCLA, in sketching for my students what was a very simple model. I called it a paradigm at the time, because I was anxious to intimidate my academically respectable friends. I would if I had to do it over again call it "model" because that's all it is. It is a little simple way of thinking about teaching.

A Four-Step Model For Instruction

What I tried to do is give my students all sorts of practice in four steps regarding the instructional process. The first of which was the *specification of objectives,* exclusively in terms of learner behavior, that is exclusively in terms of how the learner was supposed to be able to behave after instruction. The second thing, having explicated those objectives in precise terms, was to *pre-assess*, or pre-test the students to find out if they could do it. It is amazing how much time is wasted in this country in having students acquire skills they have already mastered and although that doesn't sound too probable, it is indeed the case; there is a great empirical evidence that teachers teach students to do that which they can already do very well. But there is a more important reason for pre-testing, that is to verify with certainty that students cannot do it, because the third step then, is to design some kind of an *instructional sequence.*

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* An abridgment of the address delivered at the Joint Spring Foreign Language Conference of the Modern and Classical Language Association of Southern California and the Foreign Language Council of San Diego held on April 19, 1969, in San Diego, California.

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Instructional Sequence Based On Principles Of Learning

Now, there are many people who would argue that there are some instructional principles so laudible that if incorporated, would, of necessity, yield desirable ends; this is foolish. One thing we discovered in the area of teacher effectiveness research in the past fifty years is that there is no one single act which is invariably associated with learner achievement; that is, for different teachers and different learners and different goals and different settings you are going to find differences and you can't say: "If you do this, you always are going to achieve your objectives." Yet we do have some principles which are high probability principles, principles which, if incorporated, increase the likelihood that given instructional objectives will be accomplished, and this we recommend that people build into their instructional sequence. We give them five principles just because we don't want to snow them with too many. We give very few principles, and then give our students so much practice in them that they essentially overlearn them and actually we have some evidence that they employ them when they get into the schools

One of the principles, for example is that of appropriate practice, arguing that you want to learn to acquire a given kind of instructional behavior, the very best way to have them acquire that behavior is to practice it during the instructional sequence. In order to employ the principle of appropriate practice, in order to provide relevant practice opportunities during instruction, you certainly have to know what the objective is in measurable terms, that is you must be precise about the objective, you can't very well have a loose objective such as "the students will appreciate the importance of the Mexican Culture," is you don't know precisely what that means you can't provide relevant practice opportunities. We designed then in the third step some kind of instructional sequence which we hope will win and it is probably a better sequence knowing what the objective is.

But then the fourth and final step in the model will be the evaluation, not of the student, but of the quality of the instruction; the evaluation in this instance is the evaluation of *you* and the merit of the instructional decisions that you have made; because, in general, unachieved objectives reflect instructional inadequacies, not deficiency in learners.

Teachers Are Responsible For Learning

I have lots of colleagues who will look around at poor student performance in the final examination, kids do badly in their final exam and they will blame everyone but themselves; they'll say it's an inattentive class, this group had lousy genes, they'll look any place but to themselves for the deficiency. What I try to do, perhaps something that Freud would not approve, is build up one devil of a lot of guilt in my students when their learners fail to accomplish their objectives, because you see, by providing precise objectives and saying, "These are my instructional intentions; these are the behavior changes that I want to get out of my learners," you have a vehicle whereby you can improve yourself over time because if, after instruction, the learners can achieve those objectives you win; if they can't you have to go and modify the instruction and it is a self-correcting scheme which permits, over time, teacher improvement, and that, I submit to you, is not something that most of us have going for us.

We are notoriously bad judges of whether or not students are really learning. We attend to the wrong kinds of behavior. There's all sorts of evidence that teachers are incredibly poor data-processors, we look out and we see the wrong things; for years I used to look at students in my class who appeared to be with me intellectually, that is, these are the guys that I refer to as "nodders," nodders will nod at the key moment when you have made an important pronouncement, you'll say something and, just when you've said the right thing they nod their heads. I discovered these people invariably failed my final exams.

I watched teachers observe themselves on video-tape, even before watching the video-tape, you ask them, you say: "Was that a very lively discussion, with many of the students involved?" The teacher: "Oh many of the students were involved, I would say ninety-four per cent." And then you show them the video tape, the tape in which only three students are dominating — you know, have something like eighty-five per cent of the comment. And after the video tape is over you say: "Did many students follow?" — "Yes, it was very nice." In other words, they can't really see it, even if they watch it again.

Objectives Provide Measure For Instructional Effectiveness

What I am submitting is: we don't have rigorous criteria against which to judge whether or not our instruction has been successful, but we do if we have precise objectives. So having explicit objectives yields two tremendous advantages. One is that you can, at the outset, design an instructional sequence which is more likely to accomplish its goals. An the second is you can, as a consequence of having rigorous standards, decide afterward whether the instructional sequence was indeed effective. These are two advantages that most teachers don't have going for them. If there is only one thing that is wrong with the American education today, in my estimate, it is the "means" preoccupation of teachers, it is the attention almost overridingly to what *we do* in the classroom, rather than to what *happens to the learners* as a consequence of what we do. I wouldn't for a moment want to underestimate the import of what one does in the classroom, it is very important; on the other hand, unless you judge the merit of what people do in terms of what learners achieve, you haven't really applied the proper standards, and so, it's for this reason that I have become pretty wedded to the notion of precise objectives.

If I had it to do it over again, I would not advocate the phrase "behavioral objectives." We put out some little film strips, it had behavioral objectives, and at times, it seemed to me to be an apt descriptor, and yet, it tends to turn some people off because it implies "behaviorism as a mechanism and dehumanizing" and all that; I would call it something else; but what I really mean is an operational goal which describes what the learner is supposed to be able to do in terms that you can measure, in ways that you can actually verify, so that when instruction is over, you can say, on the basis of some observable student's response, or on the basis of the way he performs on a test, on the basis of what he does outside the classroom, you can say: "I achieved my objective; I am a good teacher."

I do think there is much merit in describing your objectives in those terms. I believe that teachers would generally get much better results with learners if they described their objectives, at least in their own lines, in such a way that they know precisely when they have been instructionally effective. Now having done that, having described in explicit terms what you want the learners to do, then there are all sorts of side advantages; for one thing it makes you far less willing to engage in irrelevant activities; particularly this is so if you have the students have the objectives. You see, there is nothing wrong letting students know exactly what we are attempting to accomplish. Indeed with any kinds of adult learners, and I take that all the way down to Junior High Schools for sure, we have evidences that it works at that level, to let the students know precisely what you attempted to accomplish does all sorts of good things for you. It allows them to focus their attention on relevant tasks, and not spend their time trying to out-psyche you; in a sense, it exercises a monitoring function on you.

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And now it happens in my courses, *because I know what the objectives are, because I let my students see what the objectives are and because over time I try to improve the course,* I get an immense number of A's and B's. The last time I taught the course I think almost seventy per cent of the students — this is in a class over one hundred — seventy per cent of students had A's, twenty per cent had B's, very few C's, you have to strive to get an F.

Objectives Need Not Be Trivial

One of the things we have learned about instructional objectives, over the time I have been advocating their use, is that many of us at the outset were advocating the kind of objectives which were, although behavioral, not very appealing to teachers. For one thing, almost all of the objectives in Mager's little book are the equivalent of test items — the objective equals the test item: at the end of the course, a student will be able to list five U.S. presidents. They are just trivial little one-item objectives. Now what we learn now is that there are ways to stating objectives so that they are behavioral, that is, they describe precise learners' behaviors, but they describe a whole class of test-items, a class of behaviors you are trying to get out rather than one specific behavior — these objectives we say possess "content generality" and they are far superior to mere test-item equivalents.

Affective Objectives Also Important

Further we have discovered that, in the area of the affective domain, these objectives can also be stated in behavioral terms and they, in many instances, describe the kind of outcomes which are far more important than cognitive outcomes. Given a choice between making a student master a given chunk of mathematics and learn to like mathematics, to really be interested in math, I think, the latter objective is far more important. Most of the early attention to behavioral objectives was based upon those trivial, test-item equivalent objectives in the cognitive domain, and you will find some teachers who are turned off regarding behavioral objectives so stated, because they think that behavioral objectives have to deal exclusively with cognition, have to deal exclusively with low-level cognition at that, and have to deal exclusively with single test-items. None of these statements are true. Take a look at affect for example; we haven't known very much about affective objectives until very recently. We haven't known how to assess them; we are very good at constructing test-items of the typical type, although indeed, there is a lot we are learning about that now — I wish I had time to talk to you about the developments in the area called "criterion referenced testing" — (If you ever get a chance to talk about some of the notions that you and I have grown up with regarding reliability and validity, things like that are completely irrelevant now when you are devising a test which measures an instructional objective. When you are devising a test for example, which is designed to see whether or not you have been an efficient teacher in your class, and try to get as many of your students up to that level that you can, because that should be your intention, you will find that those tests generally have a reliability coefficient of zero, or very low. Most of us have said "You ought to have learning reliability coefficient of ninety — those people who can talk in terms of correlation discover in the area of criterion referenced testing you don't really have to have decent reliability coefficients, you can have a very very low reliability coefficient and the test does its job very very well.)

In the area of affect, we have discovered very reasonable ways to identify whether or not a student is learning, and what he is learning. What you are trying to find out when you identify effective objectives is not what the student *can* do, but what the student *will* do and you have got to discover what he is talking about, what he is thinking when you are not watching, when he is not talking in such a way that he is talking to please you. I used to observe student teachers, and I'd sit in the back of the class, and I'd come every week to this particular class and after a while the students got so used to me that they wouldn't ever pay any attention to me, actually they would pass notes and curse and do all sorts of things so that I really thought they weren't paying any attention whatsoever. And I was astonished to find out that whenever they had a chance to talk freely they never talked about education, they never talked about school, they never talked about the subject matter, they always talked about other things and I found that very distressing. If we could only bug the restroom and find out what kids are talking about — you would have to expurgate some of it I am sure, when we weren't watching, then we would find out what they really thought. If there was some way we could find out in precise terms what learners are talking about when they didn't think that they were talking to us — and we can do this and the technology for assessing effective outcomes for describing in behavioral terms is improving — this would be extremely desirable.

A Resource Center For Ready-Made Objectives

Now I have suggested that writing high level behavioral objectives in the affective domain and the cognitive domain is very difficult work. I don't want to delude you into thinking that this is something you ought to really engage in yourself too much, and this represents a very marked shift in my thinking in the past ten years when I used to go to groups such as yours, and advocate very strongly that you go back to your classes and write behavioral objectives because that was the way to salvation. I still think it is, but I think that very few people have the time, and in some cases the competence, to write really good objectives which are operationally stated. I think that you are too harassed teaching many many classes, many many hours and as a consequence of this we devised at UCLA something we call the "Instructional Objectives Exchange."

What we hope to do is to make it possible for you to be a selector of objectives rather than the generator of your own, that is, we hope to make larger pools of objectives drawn from all over the country and, hopefully, improved over time on the basis of your feedback, available to teachers whereby they can write in to the bank, select whatever subject matter in which they are interested and whatever grade level, and they get these objectives and say OK, like a menu, that's good and that's good for my group and so on. And maybe they select fifty per cent of the objectives and maybe augment the objectives on the basis of what they want to do so that local option is still prevalent. We think that this particular scheme, that is, the Instructional Objectives Exchange, has a great deal of potential merit. I hope, frankly, that it will be a marked encouragement for teachers across the country to engage in "ends-orientation instruction" or call it "criterion referenced", because this is one thing that could make so much difference in our schools. If we could get teachers, as a way of thinking, to attend the consequences of instruction, rather than the flashy activities themselves, I think we would get much greater growth out of learners.

What I have been suggesting is an approach to instruction which is essentially "ends-oriented," wherein you think first about what you would have happen to learners in measurable terms, and recognize that if you cannot identify intentions in terms of measurable learner outcomes, you cannot be advantaged instructionally.

Teachers Need Time And Skills For Planning By Objectives

What I am suggesting is that there may be some of those very worthwhile things that we all want to accomplish, but which if we cannot measure them, we cannot get better at. So for the moment I encourage most of the people with whom I work to really overemphasize the measurable objectives, because the other stuff is probably going to go on any way. Perhaps through vehicles such as the Objectives Exchange and perhaps through reduction in teaching time, because I really don't think teachers can do a proper job of instruction when they are engaged in a five hour enterprise daily, five classes a day. You are not going to get good instruction for kids unless you give teachers reduced assignments; that is not just an idle threat, we could demonstrate that teachers with reduced loads and approaching their task of instruction rigorously instead of mushily, if we could demonstrate that what happened to learners was markedly beneficial, we could get support for it. The trouble is, right now, if we gave teachers more time, most of them wouldn't know what to do with it, we would see coffee consumption bills rise, we would not necessarily see better instruction — but if you provide them with more time plus the technical skills to get better at their jobs then of course, I think you have something very marketable. I don't mean to suggest in any sense that this is an easy business — to teach this way is so much more difficult than walking into class the way most of us ordinarily do, and that is, on the way to class: "Well what will I do?" To teach this way is embarrassing because many times you will fail; to teach this way is tough because you have to decide upon the relevant and the embarrassment of failure; the distress that comes with failure to accomplish your objective is tough to live with.

Cross-Cultural Problems In Teacher-Training By Objectives

We have a program, a number of filmed and taped programs this country that work very well. The reason they work very well is that we revised them when they didn't work; one for example dealing with behavioral objectives invariably promotes learner performance in this country from forty per cent on the pre-test to ninety per cent on the post-test. It varies a little bit but is always close to ninety per cent post-test, forty per cent pre-test. Since these materials have worked rather well we decided to translate them into Spanish, a language with which some of you are familiar, and with which I am not, and so, we hired some excellent people and we translated these filmed and taped programs into Spanish, we not only translated them into a good Spanish but we tried to take out the things that would be offensive, we removed all references to the Monroe Doctrine, we took American flags out and put a neutral flag in, we really, I think, did a good job, took it down to Mexico and tried it out on several occasions — the first time was at the School of Pedagogy in Mexicali; in this country, pre-test performance forty per cent, post-test performance nine per cent, in Mexicali pre-test performance thirty-five per cent, post-test performance thirty-six per cent. Now this is at least in the right direction, but you would hardly follow a quantum leap. Now my first response was, being still somewhat human, was that I wasn't going to blame myself. My program was fine, it was their fault. But of course, that *wasn't* the proper response, the proper response was that I had really failed miserably in directing the translation of that particular operation. I failed to take cognizance of many factors, and we have revised those programs now to the point where they are getting seventy per cent on post-test performance. I am almost willing to say, some people can't design effective instruction in a culture other than their own. It's tough enough to do when you understand all the nuances, maybe it's impossible, it is for me, to do it when you don't. And it's hard to recognize that you have failed, it's hard to modify as a consequence.

Teacher Assessment Should Depend On Learner Achievement

Many of us have selected instructional techniques on the most opportunistical grounds, whatever would fill time. And what this approach by objectives requires you do is change all the time, so it's very tough to do this. What are the implications of such an approach for teacher assessment? Very considerable, not in the case of individuals but you could certainly test the impact for example of a teacher education program if the quality of performance was to be the degree to which learners could achieve pre-specified behavioral objectives.

We developed so-called performance tests of teaching proficiency. At UCLA we give sets of highly operational objectives, very clear, plus sample items to teachers and we say: "Teach to these objectives for a ten hour period; teach anyway you want, the choice of means is yours, just teach to our goals." We set these up in three or four different fields. Then we measure the learner's achievement of those goals on a pre- and post-test basis, and make at least, on an improvement basis, some judgment about the success of the group in accomplishing pre-specified objectives.

Now, I made a fairly näive assumption when we started on this research, that is: experienced teachers who are judged superior, ought to be able to outperform people off the street when it came to the attainment of pre-specified objectives — You know they were more skilled and they knew what the game was — So we started setting up some simple early comparisons between experienced teachers judged superior, five or ten years experience, and we tried to compare their performance on performance tests with the performance on these performance tests with the performance of housewives TV technicians, garage repairmen. We have not yet been able to find a group of people whom our experienced teachers can beat!

We ran a number of these studies in San Diego through the excellent cooperation of the Unified School District, I was elated when they helped out. We compared experienced teachers with the performance of housewives. That didn't seem to be too good because the housewives beat them.

Then we tried to set up some situations where we would be comparing them with more normally harassed people; so we selected attractive girls who were students at San Diego State College figuring they had the stress of studies and as a consequence they would be more like teachers, very harried. These people also our teachers couldn't beat. We selected the TV repairmen; our teachers couldn't beat them.

Teachers Need Practice As Behavior Modifiers

The results of our research suggests something that should be very disquieting to all of us, and that is that, when it comes to the activity, which really is the most focal of education, that is modifying learners, most teachers do not possess any more technical skills in this enterprise than the untrained. And it's not astonishing that they don't. The more I thought of it, the more I realized how naïve I had been; teachers are not trained at the outset to be behavior modifiers. They are certainly not reinforced for it once they get into schools. They are reinforced for a variety of other things. It seems to me that if you develop a large group, and this is happening across the country, if you develop a large group of teachers such as this one, teachers who are thoroughly unwilling to accept the "means" preoccupation of their colleagues, but who are thoroughly willing to assess quality of their own instruction in terms of highly explicit instructional objectives, you would get a vast improvement in the quality of instruction in this country, and the current quality of instruction simply isn't good enough.